

A1
said route being [calculated] determined using the destination address information in said user data packets without converting [the] said destination address information from the addressing convention to which it conforms to another addressing convention.

A2
5. (amended) A method for calculating routes for sending user data packets via information handling devices which forward data packets through [are interconnected in] a communications network, said information handling devices including (a) single-protocol information handling devices capable of recognizing and forwarding only user data packets which conform to a single protocol suite, and (b) multi-protocol information handling devices capable of recognizing and forwarding user data packets which conform to any one of two or more protocol suites, comprising
using a routing protocol to automatically predetermine whether to encapsulate a packet, at which information handling devices to encapsulate and to decapsulate [a given] said packet, and which protocol to use to encapsulate said packet.

A3
21. (amended) A method of enabling user data packets to be forwarded from one local area network to another by a router/bridge device which is capable of acting as a router to recognize and forward user data packets which conform to a first protocol suite and are encapsulated within a data link protocol

header and is capable of acting as a bridge to recognize and forward user data packets which conform to at least a second protocol suite and are encapsulated within a data link protocol header, said method comprising

93 for a user data packet which conforms to said first protocol suite and is encapsulated within a data link protocol header which is addressed to a single address which is not an address of the device, determining whether the device should act as a bridge or a router based on the destination device addressed by said data link header [causing the device to act as a bridge rather than as a router].

Please add the following new claims:

~~22. The method of claim 5 wherein~~

Sub B31 said routing protocol determines multiple routes from a starting information handling device to an ending information handling device, and

different protocols are recognized by corresponding devices on different routes,

94 such that the automatic predetermination depends upon ~~the route used.~~

21/23. A network of information handling devices which forward user data packets through communications links, each said packet including an address indicating the packet's destination, said network comprising

a first information handling device capable of interpreting addresses formatted in accordance with a first addressing scheme, said first addressing scheme defining one or more address fields that are assigned values to form an address,

a second information handling device capable of interpreting addresses formatted in accordance with a second addressing scheme, said second addressing scheme defining different address fields than said first addressing scheme, wherein

at least one address formatted in accordance with said first addressing scheme does not identify the same destination as any address formatted in accordance with said second addressing scheme, and

said first and second devices exchange control packets which specify:

the links connected to the device which originates the control packet,

the addresses, formatted in accordance with said first addressing scheme, of those destinations that are attached to the originating device and have an address corresponding to said first addressing scheme, and

the addresses, formatted in accordance with said second addressing scheme, of those destinations that are attached to the originating device and have an address corresponding to said second addressing scheme.

²²/₂₄. The network of claim ²¹/₂₃ wherein

said first device is capable of interpreting addresses formatted in accordance with said second addressing scheme, and

as part of forwarding at least one given packet addressed in accordance with said first addressing scheme, said first device encapsulates said given packet inside a header addressed in accordance with said second addressing scheme, and transmits the encapsulated packet to said second device.

94 ²³/₂₅. The network of claim ²²/₂₄ wherein

said network is organized into areas comprising routers and links which connect said routers, and

every device in a given area is capable of interpreting addresses formatted in accordance with at least one common addressing scheme.

²⁴/₂₆. The network of claim ²¹/₂₃, ²²/₂₄, or ²³/₂₅ wherein

said first and second devices are configured to transmit a hello packet on a link when the link is connected thereto, said hello packet identifying the device originating the hello packet and indicating the addressing schemes in which the originating device is capable of interpreting addresses.--
